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Pro Gly Phe Thr Gly Gly Asp Ile Leu Thr Arg Asn Ser Met Gly Glu 485 490 495

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Thr					Tyr					Asp				att Ile		3740
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Arg Asp Ala Arg Val Ile Val Leu Thr Gly Ala Ala Ser Thr Gly Val 530 540

Gly Gly Gln Val Ser Val Asn Met Pro Leu Gln Lys Thr Met Glu Ile Gly Glu Asn Leu Thr Ser Arg Thr Phe Arg Tyr Thr Asp Phe Ser Asn Pro Phe Ser Phe Arg Ala Asn Pro Asp Ile Ile Gly Ile Ser Glu Gln Pro Leu Phe Gly Ala Gly Ser Ile Ser Ser Gly Glu Leu Tyr Ile Asp Lys Ile Glu Ile Ile Leu Ala Asp Ala Thr Phe Glu Ala Glu Ser Asp Leu Glu Arg Ala Gln Lys Ala Val Asn Ala Leu Phe Thr Ser Ser Asn Gln Ile Gly Leu Lys Thr Asp Val Thr Asp Tyr His Ile Asp Gln Val Ser Asn Leu Val Asp Cys Leu Ser Asp Glu Phe Cys Leu Asp Glu Lys Arg Glu Leu Ser Glu Lys Val Lys His Ala Lys Arg Leu Ser Asp Glu Arg Asn Leu Gln Asp Pro Asn Phe Arg Gly Ile Asn Arg Gln Pro Asp Arg Gly Trp Arg Gly Ser Thr Asp Ile Thr Ile Gln Gly Gly Asp Asp Val Phe Lys Glu Asn Tyr Val Thr Leu Pro Gly Thr Val Asp Glu Cys Tyr Pro Thr Tyr Leu Tyr Gln Lys Ile Asp Glu Ser Lys Leu Lys Ala Tyr Thr Arg Tyr Glu Leu Arg Gly Tyr Ile Glu Asp Ser Gln Asp Leu Glu Ile Tyr Leu Ile Arg Tyr Asn Ala Lys His Glu Ile Val Asn Val Pro Gly Thr Gly Ser Leu Trp Pro Leu Ser Ala Gln Ser Pro Ile

Gly Lys Cys Gly Glu Pro Asn Arg Cys Ala Pro His Leu Glu Trp Asn

- Pro Asp Leu Asp Cys Ser Cys Arg Asp Gly Glu Lys Cys Ala His His 820 825 830
- Ser His His Phe Thr Leu Asp Ile Asp Val Gly Cys Thr Asp Leu Asn 835 840 845
- Glu Asp Leu Gly Val Trp Val Ile Phe Lys Ile Lys Thr Gln Asp Gly 850 855 860
- His Ala Arg Leu Gly Asn Leu Glu Phe Leu Glu Glu Lys Pro Leu Leu 865 870 875 880
- Gly Glu Ala Leu Ala Arg Val Lys Arg Ala Glu Lys Lys Trp Arg Asp 885 890 895
- Lys Arg Glu Lys Leu Gln Leu Glu Thr Asn Ile Val Tyr Lys Glu Ala 900 905 910
- Lys Glu Ser Val Asp Ala Leu Phe Val Asn Ser Gln Tyr Asp Arg Leu 915 920 925
- Gln Val Asp Thr Asn Ile Ala Met Ile His Ala Ala Asp Lys Arg Val 930 935 940
- His Arg Ile Arg Glu Ala Tyr Leu Pro Glu Leu Ser Val Ile Pro Gly 945 950 955 960
- Val Asn Ala Ala Ile Phe Glu Glu Leu Glu Gly Arg Ile Phe Thr Ala 965 970 975
- Tyr Ser Leu Tyr Asp Ala Arg Asn Val Ile Lys Asn Gly Asp Phe Asn 980 985 990
- Asn Gly Leu Leu Cys Trp Asn Val Lys Gly His Val Asp Val Glu Glu 995 1000 1005
- Gln Asn Asn His Arg Ser Val Leu Val Ile Pro Glu Trp Glu Ala Glu 1010 1015 1020
- Val Ser Gln Glu Val Arg Val Cys Pro Gly Arg Gly Tyr Ile Leu Arg 025 1030 1035 1040
- Val Thr Ala Tyr Lys Glu Gly Tyr Gly Glu Gly Cys Val Thr Ile His 1045 1050 1055
- Glu Ile Glu Asp Asn Thr Asp Glu Leu Lys Phe Ser Asn Cys Val Glu 1060 1065 1070
- Glu Glu Val Tyr Pro Asn Asn Thr Val Thr Cys Asn Asn Tyr Thr Gly
 1075 1080 1085

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Asp 105	Glu	Ala	Tyr		Asn L110	Asn	Pro	Ser		Pro 1115	Ala	Asp	Tyr		Ser 120	
Val	Tyr	Glu		Lys l125	Ser	Tyr	Thr	-	Gly L130	Arg	Arg	Glu		Pro	Cys	
Glu	Ser		Arg	Gly	Tyr	Gly	Asp	Tyr 1145	Thr	Pro	Leu		Ala L150	Gly	Tyr	
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Asn agc	His ttg	tcc Ser tgt	gca Ala 20 ata	caa Gln gcc	atg Met gag	gat Asp 999	cta	tta Leu 25 aat	Glu 10 cca Pro	Ile gat Asp	Ile gct Ala cca	Asn cgt Arg	Ala att Ile 30 gtt	Val 15 gag Glu	Ser gat Asp	
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Asn agc Ser tca Ser	ttg Leu aca Thr 50	tcc Ser tgt Cys 35 gtc Val	gca Ala 20 ata Ile caa Gln	caa Gln gcc Ala acg Thr	atg Met gag Glu ggt Gly	gat Asp ggg Gly att Ile 55	cta Leu aac Asn 40	tta Leu 25 aat Asn ata Ile	Glu 10 cca Pro att Ile gct Ala	gat Asp gat Asp ggt Gly	gct Ala cca Pro aga Arg 60	Asn cgt Arg ttt Phe 45 ata Ile	Ala att Ile 30 gtt Val cta Leu agt	Val 15 gag Glu agc ser	gat Asp gca Ala gta Val	96 144

Val (Gly	Glu	Leu	Trp 85	Pro	Arg	Gly	Arg	Asp 90	Gln	Trp	Glu	Ile	Phe 95	Leu		
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aat a Asn T	_	_		_	_						_					384	
tat o		_			_	_			-							432	
acg a Thr A																480	
ctt a Leu A																528	
ttg a	_	-		_								•				576	
gat g Asp A																624	
caa o																672	
tat t Tyr (225																720	
aat g Asn A	_	_	_		-											768	
tta g Leu (816	
act t																864	
gac g Asp A				_												912	

290 295 300

	aat Asn		_					-							960
_	ccg Pro				_			_					_		1008
	tca Ser	_		_					_				 -		1056
_	att Ile								_						1104
	gct Ala 370								_						1152
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_	aac Asn		_				_	_						_	1296
	tat Tyr									_		_	-		1344
	cca Pro 450												_		1392
	tct Ser														1440
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	aga Arg														1536

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_	PIO	ьeu	1111	GIII	_	TAT	Arg	116	Gry		Arg	тут	мта	261		
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Val	Asp	Phe	Asp	Phe	Phe	Val	Ser	Arg	Gly	Gly	Thr	Thr	Val	Asn	Asn	
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Pne	Arg	Pne		Arg	Thr	мес	Asn		GIY	Asp	GIU	Leu	_	Tyr	GIY	
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		373					000					003				
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	_			-	_						-	gga				1872
Gln	Asp	Ile	Ile	Arg	Thr	Ser	Ile	Gln	Gly	Leu	Ser	Gly	Asn	Gly	Glu	
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Ala	Glu	Tyr	Asp	Leu	Glu	Arg	Ala	Gln	Glu	Ala	Val	Asn	Ala	Leu	Phe	
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		_			_	_	_			_		Thr	_			
	ADII	1111	660	110	nr 9	y	пси	665		пор	vuı		670	- 1 -	1110	
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																0054
												gat				2064
Ile	Asp	Gln	Val	Ser	Asn	Leu	Val	Ala	Cys	Leu	Ser	Asp	Glu	Phe	Cys	
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t.t.a	gat	σаа	aad	aga	gaa	tta	ctt	aaa	aaa	ata	aaa	tat	aca	aaa	cga	2112
					-							Tyr				
пси	_	GIU	Буз	Arg	Giu		пси	Giu	цуз	Val	_	TYL	лια	цуз	AT 9	
	690					695					700					
ctc	agt	gat	gaa	aga	aac	tta	ctc	caa	gat	cca	aac	ttc	aca	tcc	atc	2160
Leu	Ser	Asp	Glu	Arg	Asn	Leu	Leu	Gln	Asp	Pro	Asn	Phe	Thr	Ser	Ile	
705		-		_	710				-	715					720	
					-					-						
22+	227	Car	000	a a a	++~	2+2	tat	20+	22+	asa.	Can	tcg	a = +	tta	aca	2208
aal	aay	caa	cca	yac	LLU	ald		act	aal	yay	caa	ccg	aal		aca	2200

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Asn	Lys	Gln	Pro	Asp 725	Phe	Ile	Ser	Thr	Asn 730	Glu	Gln	Ser	Asn	Phe 735	Thr		
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	gaa Glu															2448	
	cat His	-		-	_	_										2496	
	gtt Val	_	_					_		_	-					2544	
	cat His 850															2592	
	aaa Lys															2640	
	tgc Cys															2688	
	aag Lys													Phe		2736	
	gag Glu						_	_	_		_		_		_	2784	
-	aaa Lys			-	_		-	_				-	_			2832	

930 935 940

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tct caa tat gat aga tta caa gcg gat aca aac atc ggc atg Ser Gln Tyr Asp Arg Leu Gln Ala Asp Thr Asn Ile Gly Met 965 970	
gcg gca gat aaa ctt gtt cat cga att cga gag gcg tat ctt Ala Ala Asp Lys Leu Val His Arg Ile Arg Glu Ala Tyr Leu 980 985 990	
3 33 3 3 3 3 3	a tta gaa 3024 u Leu Glu
ggt cac att atc act gca atc tcc tta tac gat gcg aga a Gly His Ile Ile Thr Ala Ile Ser Leu Tyr Asp Ala Arg A 1010 1015 1020	_
gtt aaa aat ggt gat ttt aat aat gga tta aca tgt tgg a Val Lys Asn Gly Asp Phe Asn Asn Gly Leu Thr Cys Trp A 1025 1030 1035	at gta 3114 sn Val
aaa ggg cat gta gat gta caa cag agc cat cat cgt tct g Lys Gly His Val Asp Val Gln Gln Ser His His Arg Ser A 1040 1045 1050	ac ctt 3159 sp Leu
gtt atc cca gaa tgg gaa gca gaa gtg tca caa gca gtt c Val Ile Pro Glu Trp Glu Ala Glu Val Ser Gln Ala Val A 1055 1060 1065	
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gga tat gga gag ggc tgc gta acg atc cat gaa atc gag a Gly Tyr Gly Glu Gly Cys Val Thr Ile His Glu Ile Glu A 1085 1090 1095	
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aca gct gga tgc gca gat gca tgt aat tcc cgt aat gct g Thr Ala Gly Cys Ala Asp Ala Cys Asn Ser Arg Asn Ala G 1130 1135 1140	

	gat Asp 1145	_		_	-	_			-		_				3474
_	act Thr 1160		_	_	-	acg Thr 1165			_	_	_	_	_		3519
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-	ggt Gly 1190		_			-									3609
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Asn His Ser Ala Gln Met Asp Leu Leu Pro Asp Ala Arg Ile Glu Asp

Ser Leu Cys Ile Ala Glu Gly Asn Asn Ile Asp Pro Phe Val Ser Ala

Ser Thr Val Gln Thr Gly Ile Asn Ile Ala Gly Arg Ile Leu Gly Val

Leu Gly Val Pro Phe Ala Gly Gln Leu Ala Ser Phe Tyr Ser Phe Leu

Val Gly Glu Leu Trp Pro Arg Gly Arg Asp Gln Trp Glu Ile Phe Leu

Glu His Val Glu Gln Leu Ile Asn Gln Gln Ile Thr Glu Asn Ala Arg Asn Thr Ala Leu Ala Arg Leu Gln Gly Leu Gly Asp Ser Phe Arg Ala Tyr Gln Gln Ser Leu Glu Asp Trp Leu Glu Asn Arg Asp Asp Ala Arg Thr Arg Ser Val Leu His Thr Gln Tyr Ile Ala Leu Glu Leu Asp Phe Leu Asn Ala Met Pro Leu Phe Ala Ile Arg Asn Gln Glu Val Pro Leu Leu Met Val Tyr Ala Gln Ala Ala Asn Leu His Leu Leu Leu Leu Arg Asp Ala Ser Leu Phe Gly Ser Glu Phe Gly Leu Thr Ser Gln Glu Ile Gln Arg Tyr Tyr Glu Arg Gln Val Glu Arg Thr Arg Asp Tyr Ser Asp Tyr Cys Val Glu Trp Tyr Asn Thr Gly Leu Asn Ser Leu Arg Gly Thr Asn Ala Ala Ser Trp Val Arg Tyr Asn Gln Phe Arg Arg Asp Leu Thr Leu Gly Val Leu Asp Leu Val Ala Leu Phe Pro Ser Tyr Asp Thr Arg Thr Tyr Pro Ile Asn Thr Ser Ala Gln Leu Thr Arg Glu Val Tyr Thr

Asp Ala Ile Gly Ala Thr Gly Val Asn Met Ala Ser Met Asn Trp Tyr

Asn Asn Asn Ala Pro Ser Phe Ser Ala Ile Glu Ala Ala Ala Ile Arg 305 310 315 320

Ser Pro His Leu Leu Asp Phe Leu Glu Gln Leu Thr Ile Phe Ser Ala 325 330 335

Ser Ser Arg Trp Ser Asn Thr Arg His Met Thr Tyr Trp Arg Gly His 340 345 350

Thr Ile Gln Ser Arg Pro Ile Gly Gly Gly Leu Asn Thr Ser Thr His 355 360 365

Gly Ala Thr Asn Thr Ser Ile Asn Pro Val Thr Leu Arg Phe Ala Ser 370 380

Arg Asp Val Tyr Arg Thr Glu Ser Tyr Ala Gly Val Leu Leu Trp Gly 385 390 395 400

Ile Tyr Leu Glu Pro Ile His Gly Val Pro Thr Val Arg Phe Asn Phe 405 410 415

Thr Asn Pro Gln Asn Ile Ser Asp Arg Gly Thr Ala Asn Tyr Ser Gln 420 425 430

Pro Tyr Glu Ser Pro Gly Leu Gln Leu Lys Asp Ser Glu Thr Glu Leu 435 440 445

Pro Pro Glu Thr Thr Glu Arg Pro Asn Tyr Glu Ser Tyr Ser His Arg 450 455 460

Leu Ser His Ile Gly Ile Ile Leu Gln Ser Arg Val Asn Val Pro Val 465 470 475 480

Tyr Ser Trp Thr His Arg Ser Ala Asp Arg Thr Asn Thr Ile Gly Pro 485 490 495

Asn Arg Ile Thr Gln Ile Pro Met Val Lys Ala Ser Glu Leu Pro Gln 500 505 510

Gly Thr Thr Val Val Arg Gly Pro Gly Phe Thr Gly Gly Asp Ile Leu 515 520 525

Arg Arg Thr Asn Thr Gly Gly Phe Gly Pro Ile Arg Val Thr Val Asn 530 540

Gly Pro Leu Thr Gln Arg Tyr Arg Ile Gly Phe Arg Tyr Ala Ser Thr 545 550 555 560

Val Asp Phe Asp Phe Phe Val Ser Arg Gly Gly Thr Thr Val Asn Asn 565 570 575

Phe Arg Phe Leu Arg Thr Met Asn Ser Gly Asp Glu Leu Lys Tyr Gly 580 585 590

Asn Phe Val Arg Arg Ala Phe Thr Thr Pro Phe Thr Phe Thr Gln Ile 595 600 605

Gln Asp Ile Ile Arg Thr Ser Ile Gln Gly Leu Ser Gly Asn Gly Glu 610 620

Val Tyr Ile Asp Lys Ile Glu Ile Ile Pro Val Thr Ala Thr Phe Glu 625 630 635 640

Ala Glu Tyr Asp Leu Glu Arg Ala Gln Glu Ala Val Asn Ala Leu Phe 645 650 655

Thr Asn Thr Asn Pro Arg Arg Leu Lys Thr Asp Val Thr Asp Tyr His
660 665 670

Ile Asp Gln Val Ser Asn Leu Val Ala Cys Leu Ser Asp Glu Phe Cys 675 680 685

Leu Asp Glu Lys Arg Glu Leu Leu Glu Lys Val Lys Tyr Ala Lys Arg 690 695 700

Leu Ser Asp Glu Arg Asn Leu Leu Gln Asp Pro Asn Phe Thr Ser Ile 705 710 715 720

Asn Lys Gln Pro Asp Phe Ile Ser Thr Asn Glu Gln Ser Asn Phe Thr

725 730 735

Ser Ile His Glu Gln Ser Glu His Gly Trp Trp Gly Ser Glu Asn Ile 740 745 750

Thr Ile Gln Glu Gly Asn Asp Val Phe Lys Glu Asn Tyr Val Thr Leu 755 760 765

Pro Gly Thr Phe Asn Glu Cys Tyr Pro Thr Tyr Leu Tyr Gln Lys Ile 770 775 780

Gly Glu Ser Glu Leu Lys Ala Tyr Thr Arg Tyr Gln Leu Arg Gly Tyr 785 790 795 800

Ile Glu Asp Ser Gln Asp Leu Glu Ile Tyr Leu Ile Arg Tyr Asn Ala 805 810 815

Lys His Glu Thr Leu Asp Val Pro Gly Thr Glu Ser Leu Trp Pro Leu 820 825 830

Ser Val Glu Ser Pro Ile Gly Arg Cys Gly Glu Pro Asn Arg Cys Ala 835 840 845

Pro His Phe Glu Trp Asn Pro Asp Leu Asp Cys Ser Cys Arg Asp Gly 850 855 860

Glu Lys Cys Ala His His Ser His His Phe Ser Leu Asp Ile Asp Val 865 870 875 880

Gly Cys Thr Asp Leu His Glu Asn Leu Gly Val Trp Val Val Phe Lys 885 890 895

Ile Lys Thr Gln Glu Gly His Ala Arg Leu Gly Asn Leu Glu Phe Ile 900 905 910

Glu Glu Lys Pro Leu Leu Gly Glu Ala Leu Ser Arg Val Lys Arg Ala 915 920 925

Glu Lys Lys Trp Arg Asp Lys Arg Glu Lys Leu Gln Leu Glu Thr Lys 930 935 940

Arg Val Tyr Thr Glu Ala Lys Glu Ala Val Asp Ala Leu Phe Val Asp 945 955 960

Ser Gln Tyr Asp Arg Leu Gln Ala Asp Thr Asn Ile Gly Met Ile His 965 970 975

Ala Ala Asp Lys Leu Val His Arg Ile Arg Glu Ala Tyr Leu Ser Glu 980 985 990

Leu Pro Val Ile Pro Gly Val Asn Ala Glu Ile Phe Glu Glu Leu Glu 995 1000 1005

Gly His Ile Ile Thr Ala Ile Ser Leu Tyr Asp Ala Arg Asn Val 1010 1015 1020

Val Lys Asn Gly Asp Phe Asn Asn Gly Leu Thr Cys Trp Asn Val 1025 1030 1035

Lys Gly His Val Asp Val Gln Gln Ser His His Arg Ser Asp Leu 1040 1045 1050

Val Ile Pro Glu Trp Glu Ala Glu Val Ser Gln Ala Val Arg Val 1055 1060 1065

Cys Pro Gly Cys Gly Tyr Ile Leu Arg Val Thr Ala Tyr Lys Glu 1070 \$1075\$

Gly Tyr Gly Glu Gly Cys Val Thr Ile His Glu Ile Glu Asn Asn 1085 1090 1095

Thr Asp Glu Leu Lys Phe Lys Asn Arg Glu Glu Glu Glu Val Tyr 1100 1105 1110

Pro Thr Asp Thr Gly Thr Cys Asn Asp Tyr Thr Ala His Gln Gly 1115 1120 1125

Thr Ala Gly Cys Ala Asp Ala Cys Asn Ser Arg Asn Ala Gly Tyr 1130 1135 1140 Glu Asp Ala Tyr Glu Val Asp Thr Thr Ala Ser Val Asn Tyr Lys 1145 1150 1155

Pro Thr Tyr Glu Glu Glu Thr Tyr Thr Asp Val Arg Arg Asp Asn 1160 1165 1170

His Cys Glu Tyr Asp Arg Gly Tyr Val Asn Tyr Pro Pro Val Pro 1175 1180 1185

Ala Gly Tyr Val Thr Lys Glu Leu Glu Tyr Phe Pro Glu Thr Asp 1190 1195 1200

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Asp Ser Val Glu Leu Leu Leu Met Glu Glu 1220 1225